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342 sons sleeping in their bedrooms, the answers varied from one to eight. Sixty-six per cent had either three or four persons. Almost half, 46.4 per cent, reported more than three persons. The average was 2.3 persons per bedroom, which would seem to indicate that, on the average, the homes of these rural families were not especially crowded.

Economic Activity

463 A sample of the economic activity and the family occupational life in the villages was secured by asking the 1,282 males and 1,176 females over 12 years of age in the 515 family group what was their primary work and what, if any, was their secondary occupation. Eighty-eight per cent of the males and 80 per cent of the females were doing farm work. Only 18.6 per cent of the men and 18.5 per cent of the women reported a primary occupation that was non-farming.

Besides farming the men reported 55 different primary and 56 secondary occupations. There was, of course, a great deal of duplication in the two lists. For the women the lists were much shorter, nine primary and 12 secondary non-farming occupations. Similar occupations have been combined in the figures in Table 14.

Thirty per cent of the males and 38 per cent of the females reported secondary work. Farming was the primary work for most of these. Secondary work could be done during the winter months or other slack times on the farm. Only 12 of the men with non-farming primary occupations reported any secondary work. For 11 of those the secondary work was farming, evidently helping out during the busy seasons.

Only 3.7 per cent of the males and 1.3 per cent of the females reported that they were idle or had no occupation. The women apparently did not ordinarily think of home making as an occupation, for only 3 per cent gave that as their vocation.

Seventy-nine per cent of the males were working on the farms operated by their families. Nine per cent did some farm work for wages. Five per cent did both types of farm work. No women reported doing farm work for wages. Thirty-eight of the families, 7.4 per cent, owned no land; 22 families, 4.3 per cent, farmed no land. These proportions were practically the same as those for the entire hsien (see Chapter X).

Six and one-half per cent of the males were engaged in selling, either in stores or as itinerant peddlers. One woman was selling cakes. Almost 10 per cent of the males worked as laborers, skilled or unskilled, as

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carpenters, masons, barbers, watchmen, sheep herders, or cotton ginners, but only 2.9 per cent reported such work as their primary occupation.

Government work, including the police force and the army, employed 2.1 per cent of the males. Nine reported government work as a secondary occupation but they were village officers, heads of street organizations, or engaged in other community work, all of which was usually unpaid.

The apprentice system was used by some stores in the villages but was not a large economic factor in the countryside. There were only four apprentices in the 515 families. On this basis the total for all the village families was some 530 apprentices.

The small number of students, 48 males and three females, indicates the small amount of school work done by the adolescents in the rural areas. Twenty-four men were engaged in teaching or school administration.

Twelve per cent of the males and 51.5 per cent of the females were doing work classed as Home Industry (see Chapter XV), making articles for sale and receiving their pay from profits rather than from wages. For all but seven of the 156 males their home industry was a secondary occupation. Those seven reported weaving as their primary work.

Spinning, weaving, or both, were reported by 9.7 per cent of the males and 50.4 per cent of the females. Only five males did any spinning. Of the females doing spinning and weaving, 81.6 per cent did only spinning, 1.3 per cent did only weaving, and 17.1 per cent did both.

Chinese Surnames

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One hundred and ten surnames were represented in the 10,445 families in the 62 villages of the Experimental District. There were 1,419 families named Wang and 856 named Chang. The Liu families were third with 828. Then followed the Li, Ma, Chao, and Chen families. The Yang, Wu, and Shih families were also included in the first 10-family groups, all of which had over 200 families each.

At the other end of the list, there were 15 names that were represented by only one family each. Thirty-nine names had less than 10 families each, while 51 names had less than 25 families.

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The number of family names or clans represented in the different villages varied from one to 26. The average was 8.5. In Wang Chia Chuang, a village of 80 families, everybody was named Wang. In an-

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463 TABLE 14. OCCUPATIONS OF FAMILY MEMBERS OVER 12 YEARS OF AGE (515 families)

Males

Occupation	*Primary*	*Secondary*
Farming	993	14
Hired farm labor	64	55
Merchant	25	11
Peddler	7	40
Store employee	6	6
Apprentice	4	–
Skilled labor	17	65
Unskilled labor	13	30
Home industry, misc.	–	32
——, weaving	7	112
——, spinning	–	5
Doctor	2	5
Education	19	5
Government	11	9
Military	15	–
Student	48	–
Unemployed	40	–
No occupation	2	–
Away from home	8	–
No data	1	–
	1,282	389

Females

Occupation	*Primary*	*Occupation*	*Secondary*
Farm work	943	Spinning and weaving	428
Spinning and weaving	165	Dyeing	4
Home work	44	Bean curd making	3
Students	3	Bread steaming	2
Miscellaneous work	2	Cotton picking	2
Selling	1	Miscellaneous work	2
Sewing	1	Noodle making	2
Begging	1	Cotton ginning	1
None	15	Sewing	1
No data	1		445
	1,176		

2: Gamble S-5 (1926-1933)1954 AF 12 North China AF 12

Modern business influences were reaching the countryside for in Tung T'ing four of the stores were organized as limited corporations.

Some indication of the amount of peddling done by the villagers is given by the occupation figures of the 515 families in Table 14. Seven men were reported as full time peddlers. For 40 it was a part time occupation. If this sample was typical of other families in the hsien the number of peddlers was about 6,500.

The 83 periodic markets were where most of the people in Ting Hsien sold their farm produce and the output of their industry and where they bought the things they needed for the farm, the shop, or for personal use. Most of the trading was done out of doors. Many of the stores in the village or in neighboring villages sent their representatives with a stock of goods to the market. The map on page 5 shows how the markets were distributed in the hsien. Table 88 gives the number in each district and the dates on which the markets were held. The small number in the 1st District was undoubtedly due to proximity to the city market, which generally offered the best opportunity for trade. The Provincial Institute of Political and Social Reconstruction listed 9 village markets as first class, 17 as second class, and 36 as third class. The remaining 20 would be fourth class.

The markets were regularly held every five days, six times a month. The dates followed the lunar rather than the solar calendar. The dates for neighboring markets usually were arranged to avoid conflict. The hsien map shows the dates for the 15 markets in the Experimental District. The markets for farm produce were naturally most active in the fall. Those for horses, oxen, mules, and donkeys had their busiest time in the 2nd and 3rd months, when the animals were needed for the farm work, and in the 7th month when the farm season was over and the farmers were anxious to get rid of some of their stock. The pig markets were most active in the 8th and 12th months, before the fall and New Year festivals, when most families were buying meat for the festival feast. The thread markets had their busiest time in the fall and winter months.

In the Tung T'ing market, which drew traders from 50 neighboring villages and was one of the largest in Ting Hsien, there were special sections for grains, farm animals, pigs, ducks and chickens, cotton, vegetables, fuel, cotton cloth, peanut and cotton seed cake. In the water-

2: Gamble S-5 (1926-1933) 1954 AF 12 North China AF 12

tries ranged from $2.90 for the thread spinners to $427 for the wine makers. For eight industries the amount was over $100 but, except for bristle sorting, these were industries with few workers. Five of the eight industries had not more than 10 workers. For seven industries the amount was less than $5.00 per worker per year, for 14 it was less than $10.00. The seven industries with the lowest amount per worker included 46 per cent of the workers, the top eight industries only 0.6 per cent. The gain of each group was almost the same, 13.8 per cent of the total gain for the lowest group and 13.0 per cent for the top group. The industries with gains of not more than $10.00 per worker per year included 90.5 per cent of the workers, but only 59.3 per cent of the total gain.

Only seven of the 88 home industries—spinning, weaving, bean curd, vermicelli, noodle and soap making, and sesame oil pressing—were reported from all six districts of the hsien and could be said to be hsien wide. Sixty-one per cent were found in only one district.

Every village had at least one home industry, but none had more than eight. The average was 3.4. Spinning was the most widespread. It was reported by all but 16 of the 453 villages. Weaving was done in 378 villages. Bean curd was made in 249, vermicelli in 94, noodles in 77, and sesame oil in 51. These six industries were the only ones found in more than 10 per cent of the villages. Only five other industries were reported by 10 or more villages. Thirty-nine industries, 44 per cent, were reported by only one village; another 17 were found in only two villages.

Very little metal and woodworking was done as home industry. Together their output was only 2.1 per cent of the home industry total. All but one of the different types of metal work were reported by only one village. Only 26 families were doing metal work. Only one type of wood work, pitchfork making, was reported by more than three villages. It was carried on in seven villages. The output of the metal and wood working shops in the city and villages was some five times that of the home industry families. Itinerant blacksmiths and carpenters helped to meet the community need for metal and wood work. Not a few of the metal workers were Shansi men who came down to the coastal plain for work. They brought Shansi iron with them and added to it by accepting locally available scrap in part payment for their work.

Almost three-quarters, 72.5 per cent, of the 204 city shops were small businesses with less than five workers. Only one per cent had more than

2: Gamble S-5 (1926-1933)1954 AF 12 North China AF 12

14 workers. They were two large eye medicine shops, one with 25 workers, the other with 45.

The 824 workers in the city shops were divided:

	Number	*Per Cent*
Manager, accountants, clerks	119	14.4
Workmen	543	66.0
Apprentices	162	19.6
	824	100.0

The 162 apprentices were being trained in 117 of the shops, 58 per cent. The training period ordinarily was three years. In some cases it was three years plus a festival. In a few trades it was four or even five years. All the boys were given room and board. Some shops also provided their clothing. No regular wages were paid the apprentices but in most cases they were given presents of money at New Year's time. The amount was usually $5.00 or $10.00 depending on the time the boy had been with the shop. As so many of the shops had relatively few workers there were only 10 that had more than one or two apprentices. One large eye medicine shop reported 10. There was an average of one apprentice to 4.1 other employees and one apprentice to 3.4 other workmen.

The wages paid by some of the shops are shown in Table 94: daily from $0.45 to $1.00, monthly from $3.50 to $30, and yearly from $30 to $70—all plus board and tips.

The estimated value of the goods produced by the city shops totaled some $731,000. This was an average of just under $300 per shop per month. For one-third of the shops the amount was less than $85 per month. Only one-fifth of the shops produced as much as $250 per month.

The estimated profit of the city shops was some $216,000, almost 30 per cent of the value of the output. The high rate of profit of the eye medicine shops, 52 per cent, and their large proportion of the output, 42 per cent, were largely accountable for this high average. Only 10 industries reported a rate of more than 20 per cent and only five more than 25 per cent. Only 20 per cent of the shops were in the "more than 20 per cent" group.

Profits were less than $200 a year for 53 per cent of the shops. Only 14 per cent made as much as $50 a month. Three shops, evidently eye medicine shops, were in the $10,000 a year and over group.

The best reports and estimates we could get on the amount of capital invested in the city shops gave the total as $77,160, an average of only

2: Gamble S-5 (1926-1933) 1954 AF 12 North China AF 12

288 434 We could not find any reason that would explain why the 1933 index number was 167 for the annual wage, but only 86 for the daily wage; 125 for the highest ginning piece wage, but only 75 for the batting wage.

The yearly wage was 86 times the day rate in 1921, 175 times in 1927, and 167 times in 1933. During the 13 years covered by our figures there evidently was considerable improvement in the financial position of the yearly workers, at least when compared with that of the men who were paid by the day or on a piece rate basis.

Cotton Spinning

286 463 Most Ting Hsien families had a spinning wheel as part of their household equipment. Most of the girls and a few of the boys learned how to use it. The girls usually began spinning when they were 12 or 13 years old. Ordinarily it took them some four or five months to learn. During that time they practiced on "red" cotton. A new spinning wheel cost about 50 cents.

All but 16 of the 453 villages, 97.5 per cent, had at least one spinning family. One-third of the spinning villages had not more than 20. Just under two-thirds, 61 per cent, had not more than 50. Three had more than 300 and one had 360. The total number of spinning families was 28,367, an average of 65 per village. Forty-two per cent of all the village families had at least one member who was making thread.

The total number of spinners was 39,720. Almost 95 per cent of these were females, as only 2,106 male spinners were reported. Twenty-eight per cent of the females over 14 years of age were spinning. Only 55 villages reported any male spinners. All but six of those villages and all but 231 of the male spinners were in the 6th District. Three villages reported that all their spinners were males.

In most of the spinning families more than one person was doing some spinning. The average for the hsien was 1.4 per spinning family. In the 6th District it was 1.9. In eight villages, seven of which were in the 6th District, the average was over 2.5 per family while in three villages, all in the 6th District, it was three per family.

283 It was generally estimated that the women would spin one catty of thread in five days or from one market day to the next. This was borne out by the figures for the 67 spinning villages in the 1st District. There the village average per spinner ranged from 10 to 134 catties but for more than half the villages the average was between 20 and 30 catties

3:Chao E-5 (1939-1941)1948 AF12 North China AF12

family at once strikes the attention of the observer as the most fundamental cooperative unit. Beginning with a newly-born baby, we know that it has to be fed by the mother from one to three years. In the case of the mother, immediately after the delivery of the baby, she has to be taken care of by her mother-in-law, husband or elder daughters from ten to thirty days as the case may be.[7]

Naturally all family members share the same sources of material supply with males and elders getting a better share. In case there are employees, they are treated as members of the family. This unit of family and non-family members living in the same house and eating at the same table is what is to be called a family-household.[8]

The activities preparatory to the actual consumption are shared by household members. The work of cooking and related tasks fall on the daughter-in-law with proper supervision by the mother-in-law if necessary. In the case of a family with parents and unmarried children, all this work belongs to the wife sometimes with the assistance of grown-up daughters. There is no tabu on males doing cooking. Husbands may sometimes do better cooking than their wives, but they prefer to have more leisure if they can afford it.

In order to eat, to be clothed and to have shelter, one has to work. While adult males of the family do not take part in the preparation of food and the making of garments, they have to earn the means for these consumptive goods, not only for themselves, but for their old parents and other dependents.

While commercialism has not as yet deeply penetrated into the life of the people, villagers appreciate the power of money sufficiently well. About half of the family-households in the village depend on farming for their means of subsistence and material welfare; the other half have to work in the woolen factory in a town about a mile

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7 Audrey I. Richards in **Hunger and Work in a Savage Tribe**, London, 1932, has initiated a very interesting and important analysis of the sociological implication of nutrition. A sociological treatment of nutrition in P'ing-chiao-tsun is now undertaken. It is not the purpose of the present paper to go into the details of the matter.

8 Household is the unit of our population census taken in the village. A household has only one economic management. A temple, a store or a school is also known as a "household". A family-household is one with a family as its core.

3:Chao E-5 (1939-1941)1948 AF12 North China AF12

away as unskilled laborers, to engage in handicraft work at home, to sell as peddlers, or to live on family inheritance.[9]

The village has a very rich family. It owns half of the cultivated land of the village. Members of this family engage in big businesses in the city of Peiping and in professions in other cities.[10] In addition to this family, there are two more families, one farm and one non-farm, that have business, but on a very limited scale, in the city. Of the other families, only seven persons are in professions and government services, but they hold only very low positions.

Exchange with town- and city-people is important to the villagers. Non-farm families have to buy their daily necessities either from one of the market-towns,[11] or from the two stores in the village which in turn buy their own provisions from towns and the city. The farmers sell their non-food products and cereals of high quality to collectors in the nearest town and buy cereals of low quality for their own consumption. Economic factors have brought the villagers into contact with many strangers, with whom they have to cooperate in order to earn a living. There are not a few families that produce for their own consumption only, but these families have to find other means to buy agricultural implements and other necessities.

In these days of great fluctuation in prices, the villagers, particularly the farmers, have many worries. To be a debtor is bad, but to be a creditor is worse. The paper notes returned to a creditor who loaned out his good money years ago are all but valueless to him. One of the most popular subjects of conversation is this economic instability. The villagers have felt the pressure of a world larger than the family and the village. In the solution of their problem of hunger, this pressure has to be considered.

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9 Statistics on occupation and land have been collected. It is hoped that some day we can publish these data.

10 This family of wealth is partly isolated from the rest. It is only recently that we have had a more intimate contact with its members. It is hoped that a case study may be made of this family.

11 For more information on village and town relations, see Ching Ho: A Sociological Analysis, The Department of Sociology and Social Work, Yenching University, 1930, and a revised statement in Chinese by Ti Huang, The Ch'ing Ho Village-Town Community, The Department of Sociology and Social Work, Yenching University, 1938. 黃迪, 清河村鎮社區, 社會學界第十卷單行本, 民國二十七年六月.

3:Chao E-5 (1939-1941)1948 AF12 North China AF12

735 their former condition. The monetary inflation was accelerated in
556 the last years of the war. Those who had little reserve were very
558 hard hit. Some of the clever rich had profited. The short period of price-falling, immediately after the war, had a bad effect on those who had full confidence in the government, when the inflation came back again even at a more rapid rate of acceleration.

565 Members of the richest family were not in the village. They
556 looked for and lived in cities, as places of security and merriment.
427 Their house and farm were in the hands of two old laborers. These
463 two old laborers of the house became managers of the farm and hired other laborers for the work. The relation of the two laborers to members of the house was one not merely economic in nature, but something personal. The rent of the land was not fixed but varied from year to year at the good will of the managing-laborers. The house was very much dilapidated which was a sign of negligence on the fact of the managing-laborers, and the scant attention paid by the proprietors to their property. The relation of the two groups of laborers was interesting. The manager-laborers had not sufficient time to assume the attitude of a managing-farmer. They commanded the respect of the hired laborers, not so much by their authority, but rather because of their skill in farming.

621 The major effect of the end of the war was the change in the
662 formal political machinery, and the consequential shift in its person-
622 nel. The *pao-chia* system was there when we first revisited the village, but the *fang-li* system and the *Hsin Min Hui* were no longer in existence. The school principal became the deputy head of the *lien-pao* together with new heads of the six old *chia*. Beneath this superficial structure was the struggle for power between two groups. An ambitious duet of father and son wanted to control the *lien-pao*. They organized a group of self-protection militia with the explicit purpose of strengthening the protection of life and property in the local district. They utilized external influence to oust the head, and the deputy head, of the *lien-pao* by accusing them as collaborators of the enemy.

Amidst this struggle for power came a mishap to the deputy head, and his removal from the position of school principal. Whether his removal had anything to do with the poljtical struggle was not known, but following this removal he resigned his office of deputy head. The whole episode was certainly a blow to Mr. H. As we may recall, Mr. H. had the ambition to restore the status

Table 6.—Occupations of the Employed Persons

Occupation	Male members		Total	Occupation	Female members		Total
	Husbands	Others			Wives	Others	
Rickshamen	32	9	41	Sock finishers	6	17	23
Apprentices	—	6	6	Artificial flower makers	9	4	13
Coal pickers	—	3	3	Yarn spinners	7	5	12
Artificial flower makers	1	1	2	Seamstresses	11	—	11
Carriers	1	1	2	Yarn winders	2	3	5
Waiters	1	1	2	Wind glasses finishers	—	2	2
Shop assistants	2	—	2	Hair net finishers	1	1	2
Yarn winder	—	1	1	Maidservants	2	—	2
Yarn spinner	—	1	1	Chinese cap finishers	1	—	1
Tailor	1	—	1	Midwife	1	—	1
Barber	1	—	1	Matches hawker	1	—	1
Printer	—	1	1	Cross-stich workers	—	1	1
Gelatine maker	1	—	1				
Tinker	1	—	1				
Worker at a manure store	—	1	1	All occupations	41	33	74
Dustman	1	—	1				
Cart driver	—	1	1				
Carriage driver	1	—	1				
Vegetable hawker	—	1	1				
Guide	1	—	1				
Policeman	1	—	1				
All occupations	45	27	72				

5: Tao E-5 (1926-1927) 1928 AF12 North China AF12

he is, therefore, decidedly a person with an occupation. Coal-picking is likewise considered an occupation, because it is some service rendered generally by the children in order either to save for the family some expense on fuel or through selling it to add some income to the family. Though, strictly speaking, both are not occupations as is generally understood, yet they are undeniably gainful employment from the standpoint of the family.

From Table 6, one finds that more than half of the employed males were rickshamen, while four-fifths of the employed females were engaged in sock-finishing, artificial flower-making, yarn-spinning and tailoring. It should be observed that the persons listed in this table had frequently more than one occupation, for employments of a similar nature or requiring little skill are often exchangeable. Thus, the yarn-spinner might, at times, take up yarn-spinning, while the rickshaman might temporarily turn into a carrier. That there should have been such a strong representation of women in manual occupations may be explained by the fact that the households for which the accounts were kept were selected with a view to supplementing the study of the Peking handicraft trades. They earned their pittance, in order to make some contribution to the insufficient income of their husbands or sons. As regards the gainfully employed males, however, their occupations were diversified, though the rickshamen alone represented one half of them. The fact that there should have been so many rickshamen in the samples taken up by the inquiry is not only interesting but calls for some consideration. Though it should be confessed that such a predominance of rickshamen among the employed males was quite unexpected, yet after a careful study of the labour conditions of Peking in general and of its manual workers in particular, the phenomenon was in fact not so peculiar or abnormal as it appeared. In order to enable one to understand this phenomenon, it is necessary to discuss briefly at this juncture a few outstanding facts concerning labour in Peking.

In the first place, the handicraft trades, of which a study was made by this Department, were essentially those of women. In

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463 only exceptional cases could such manual work, like yarn-spinning or sock-finishing, as was generally done at home by women for a pitiable amount of remuneration, enable a family to depend entirely upon it for even a bare subsistence, not to say, a comfortable living. Whether it was through the insufficient remuneration of the women home workers that men had to apply themselves to certain jobs or it was because of the earnings of men being too low that women had to take up manual work and earn money to supplement those of the men, it is immaterial for us to go into in the present discussion. All that need be said is that the men, if able-bodied and having the responsibility of maintaining their families, were compelled to seek and pursue some trade. Unhappily Peking is not yet in a position to provide for them opportunities of industrial employment that would give them an adequate return for their exertions, as it is still backward in modern industrial development and possesses no factories whose employment of 494 workers is worth speaking of. Now, of all the trades that are 463 most easily accessible, it is clear that none surpasses ricksha pulling, for it requires very little practice and nothing but sheer muscular energy. Nor does it call for any capital outlay except a small amount to be paid every day for the hire of the ricksha. It is, therefore, not at all remarkable that enormous numbers of the unemployed and the unskilled are either attracted or driven to this inhuman form of human motor transportation. In short, the ricksha pulling trade in Peking resembles a big labour reservoir to which flows all labour force—the unskilled, the semi-skilled and even the skilled that sometimes find themselves temporarily out of work—and from which is drafted labour force of one kind or another, whenever there is demand for it.

The number of rickshamen has been estimated in round numbers at 50,000 in January 1927 and a later figure puts it at 40,000. Without inquiring into the absolute accuracy of these figures, it may be definitely claimed that persons engaged in pulling rickshas far exceeded those of any other occupation in Peking, for, according to a rough survey of our investigators made in November 1927, the persons engaged in such important

5: Tao E-5 (1926-1927) 1928 AF12 North China AF12

trades as masonry and carpentry were only about 20,000 and 12,000 respectively. Moreover, the overcrowding of the ricksha pulling trade is not to be wondered at if one studies a little the conditions in Peking. Since on the one hand, there exists a multitude of unskilled or semi-skilled workers who have nothing to dispose of except their muscular energy, and, on the other, there is the ricksha which has become the most favoured means of transportation owing to the wretched conditions, or rather the lack of any system, of communication in and around Peking, it is only too natural that so many of the poor people should have plied the ricksha trade. It may, therefore, be concluded that the preponderance of their class among the employed males as appears in the table may be taken as a condition rather typical of the Peking working population.

HOURS AND DAYS OF WORK

As a rule, what is understood as work in China is often done in an easy and leisurely way and hardly demands such extreme hustle and activity as is required in modern factories. Accordingly, care should be taken in reading the reports on working hours of Chinese labourers, as most of them indicate only how long the stretch of work is per day and supply no idea respecting its intensity or exertion required. For those who are accustomed only to the factory work in the west, these long working hours must, therefore, be taken with a somewhat different meaning. In the course of the present inquiry, the working hours of the employed persons had been investigated but the results were found unsatisfactory on account of the reasons cited above. The rickshaman, for instance, might report that he worked nine hours a day, whereas he very seldom found himself pulling the ricksha for more than two hours in continuation. The shop assistant, again, was supposed to work for twelve hours between the opening and the closing of the shop every day whereas in fact he might be idle for many an hour during the period. However, this is not to say that long hours of work are harmless to the labourer and should, therefore, be supported, for even when a

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443 108 stores or 88.5% are managed by the proprietors or their partners, and only 14 stores or 11.5% are able to afford to employ managers to look after the business, and all these stores have a capital of over $1,000. Among these 14 stores six also employ an assistant manager. Not all the big stores are included in these 14, and there are still 13 stores having a capital of $1,000 or more which are managed by the owners themselves, but 7 of these employ an assistant manager who is the real business head.

9. Positions of Store Population.

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463 In this section we shall only include males above the age of 16 years as there is only one woman in business who keeps a small inn. In addition to the 496 males above the age of 16 years there are also included 42 apprentices younger than 16 years, bringing the total number of male employees to 538. The positions which absorb most poeple are those of clerk, apprentice and manager, which employ in all 406 persons or 75. 5% of all the store workers. On the average each store has one clerk, one apprentice, and one manager, although the fact of there being 127 managers to 122 stores needs explanation. This is owing to the fact that in certain partnerships all the partners are active in the business, and it is not possible to distinguish and call one manager and the other assistant. In addition to the ordinary clerks there are 25 accountants and 23 outside workers who carry on special duties in making negotions and studying market conditions. In the ordinary shops the division is not so distinct, and the clerks are

6:Young et. al. E-5 (1928-1929) 1930 AF12 North China AF12

supposed to combine all these duties with their other work of looking after retail sales. 443 463

TABLE XXXI POSITION OF STORE WORKERS

POSITIONS.	PERSONS.	
	NO.	%
Clerks.	147	27.3
Apprentices	132	24.5
Managers	127	2`.6
Accountants	25	4.6
Assistant managers	25	4.6
Outdoor workers	23	4.3
Handicraft workers	21	3.9
Sons of managers	14	2.6
Cooks	14	2.6
Fathers of managers	3	0.6
Third assistants.	2	0.4
Doctors	2	0.4
Pedlers	2	0.4
Unknown.	2	0.4
Toial	539	100.0
Less one duplicate	538	

ECONOMY

TABLE XLI. MARKETING HOURS OF THE DAY

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TIME IN MORNING	MARKET DAY	NON-MARKET DAY	NON-MAKRET DAY AS 100
7	256	141	182
8	650	206	316
9	678	220	308
11	467	251	186
Average	513	205	248

5. Occupation and Income.

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The classification of occupation has been most difficult, because there are so many kinds of work which are not standardised, and do not fit into any class, but finally we have adopted twelve classes, and put the remander into an "unclassified" group. In the considering of occupational distribution only the the males have been taken into account, because of the 630 female members belonging fo the 371 families studied, only 18 have any definite occupation; fifteen are doing domestic work in other households and three are midwrives The 39 women mentioned in the stores both help their husbands in the business and at the same time manage their family affairs. (In the enquiry we have only included those people above sixteen years of age, because children cannot be said to have a definite occupation). In the stores it is natural that most of the workers should come under the heading of merchants, but there are several in other categories such as cooks (see chap. V Stores.) In the families we have a greater variety of occupations, but the largest class is still the merchants which comprises 169 persons or 29.1%, followed by the farmers who number 127 or 22%.

6:Young et. al. E-5 (1928-1929) 1930 AF12 North China AF12

CHING HO: A SOCIALOGICAL ANALYSIS

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TABLE XLII. OCCUPATIONAL COMPOSITION

OCCUPATION	NO. OF CASES	PERCENTAGE
Trade	169	29.1
Agriculture	127	22.0
Public service	50	8.6
Handicraft	39	6.7
Communication	33	5.7
Personal service	29	5.0
Libourers	29	5.0
Apprentices	26	4.5
Coolies	23	4.0
Cooks	22	3.8
Teachers	5	0.9
Doctors	4	0.7
Unclassified	24	4.1
Total	580	100.0
Unemployed	46	
Unknown	20	
Less those celow 16	16	
Grand total	630	

Some notes may be necessary to explain the

6:Young et. al. E-5 (1928-1929) 1930 AF12 North China AF12

above table. Public service includes government officials, soldiers, and police; "labourers" includes workers in factories and work which does not require much skill; "Coolie" includes workers who contribute power; while "unclassified" includes more than twenty types of big and small jobs. We have included 46 unemployed, and 20 whose occuqation is not known, but there are also sixteen persons under 16 years of are included in this table who should bo subtracted from the final total. 463

We are not able to present any statistical figures in regard to income, as in most cases Chinese workers do not have a definite wage, especially in the case of farmers and owneroperators of stores. Workers in the "communica tion" class, handicraft workers, and some others have a definite wage for the day's work, but their work is not regular, and they cannot say when they will be without work for several days. Store employees are paid a definite monthly wage, in addition to board and lodging, and a small share in the profits. Detailed figures for such are presented in the following chapter when dealing with other items in the analysis of stores. 434

87/ from the fact that their parents do not like their older daughters mixing with the boys in the higher grades.

TABLE LIII. AGE AND SEX DISTRIBUTION OF PUPILS

AGE	TOTAL	MALE	FEMALE
5	1	1	0
6	6	5	1
7	8	4	4
8	12	8	4
9	11	10	1
10	25	22	3
11	26	21	5
12	15	12	3
13	7	7	0
14	10	10	0
15	5	5	0
Total	126	105	21

Most of the pupils are still within the "school age"—as it is defined by the educational authorities in China, that is six to eleven years inclusive. Only one boy is below, and twenty boys above the age, while all the girls come within the specified period.

[463] Another interesting point on which we made en-

6:Young et. al. E-5 (1928-1929) 1930 AF12 North China AF12

quiries was the occupation of the parents, as this has a bearing on he objectives and curriculum of the school. As the school is situated in a town we should expect that a good number of the parents would be occupied in trade. This is the case in Ching Ho where we found that the parents of 41% of the pupils were engaged in some sort of trade. The distribution is as follows :

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TABLE LIV. OCCUPATION OF PUPILS' PARENTS

OCCUPATIONS	NO. OF PUPILS	%
Trade	51	40.5
Industry	30	23.8
Farming	21	16.7
Unemployed	8	6.3
Pedlers	6	4.8
Officials	4	3.2
Military service	4	3.2
Teaching	1	0.8
Doctor	1	0.8
Total	126	100.0

From a study of this table we can safely say that Ching Ho's educational need is more commercial than agricultural, although of course, an educational centre should cater for the needs of all its neighbours.

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7: Gamble S-5 (1926-1927) 1933 AF12 North China AF12

three until the income was over $60 a month; over four when the income was over $125 a month; and over five when the income was above $200 a month. (Table 2.)

The average age of the group was some twenty-eight years, Chinese count. In some American cities, the average person is approximately two years older.[2] Eighty-four per cent of the females and 74 per cent of the males over fifteen years of age had been married; but 13 per cent of the women and 4 per cent of the men had been widowed and had not remarried. There was more than one wife in only two families. Judging from the number of single persons in the different age groups, the most popular marriage age seems to be from twenty-one to twenty-three for the women, and from twenty-six to twenty-eight for the men. Eighteen births, 15 deaths, and nine weddings were reported during the year.

Income was earned by 340 men working in 55 occupations, and 98 women engaged in 13 kinds of work, an average of 1.5 persons per family. (Table 4.) There was more than one wage earner in 106 families, 37 per cent. One family had six workers, a vegetable peddler, two ricksha men, three women weaving cloth. The largest occupational groups for the men were clerks and accountants 47, ricksha men 46, peddlers 25. More than half of the women workers earned small amounts sewing and washing. None of the women in the 23 families with incomes of more than $150 a month were gainfully employed, and in only four of the 45 families with incomes between $70 and $150 a month were any of the women working. They were nurses and teachers.

The group included four Mohammedan families, and

[2] No. 44.

8: Lin E-5 (1927)1928 AF12 North China AF12

the town was the first to suffer from the heavy cannonading of foreign troops. It was practically demolished by gun-fire and the inhabitants of Tangku had to flee for their lives and seek refuge in distant villages. In fact, what they had saved were only their lives, for whatever they had, homes as well as properties, were either pillaged or destroyed. Then the French, Japanese, German and Russian troops seized huge tracts of land along the river for the building of barracks to house their garrisons. Except the Germans and Russians, the French and Japanese hava retained possession of the land ever since. In the meantime, the port of Tientsin again became accessible to ocean-going steamers. In those years, the town of Tangku suffered a decline from which it has never recovered. The appearance of the Chiu Ta Factory, however, has contributed greatly to the development of Tangku. At least in its immediate neighbourhood, roads and bridges have been built and an electric plant installed by the Factory. Towards education, police and welfare work, it has also contributed its share. It is no exaggeration to say that the Chiu Ta Factory has been a civilizing influence in this once decrepit town and it has promoted its material as well as spiritual progress. In the summer of 1927, the river route to Tientsin wos again blocked by silt and Tangku has once more become the port where goods and passenger traffic to and from Tientsin must pass through.

II. WORKERS OF THE CHIU TA FACTORY

Classification of Workers.—The workers of the Chiu Ta Factory fall into two classes, common labourers and skilled labourers. The latter may be further distinguished as (1) skilled labourers, (2) semi-skilled labourers and (3) apprentices. The skilled labourer has been trained either in the factory or in some other place. The semi-skilled labourer is generally recruited from among common labourers, but he is required to assist in skilled work. He is accorded the same treatment as the common labourer, only his wage is increased more frequently; and being engaged in more or less skilled work, he could gain knowledge

8: Lin E-5 (1927)1928 AF12 North China AF12

and experience of a technical nature. Apprentices are employed from time to time by the factory to be trained by skilled labourers. The term of apprenticeship is three years; but at the end of every year, they are examined. When the term of apprenticeship expires, they are promoted according to merit to the skilled class. The workers of the power house and iron workshop are regular labourers of the factory, but in the carpenter shop, apart from the regular labourers of the factory, additional labourers are occasionally employed for short periods in busy seasons. These labourers are paid daily and their nnmber is determined by the amount of work required in the factory. Masons and coolies are also employed from time to time and paid daily. These three classes of workers together with the coolies and servants of the Golden Sea Industrial Chemical Research Institute and of the Hospital are not placed on the permanent list of workers of the Chiu Ta Factory and, therefore, they do not fall within the scope of our investigation.

Workers in the factory are not graded into definite classes. For instance, a worker may be assigned to direct other workers, in order to speed up their work, but he is not supposed to be their foreman. In fact, no such title is known in the factory. He who directs the workers is given authority only during the working hours, while at other times, he is but one of their equals. All the workers have access not only to the administrative staff, but also to the chief of the managerial department. In case of any difficulty arising between the management and the workers, the chief of the department would interview the workers and exchange opinions with them. In this way, disputes, if any, are easily and amicably settled.

The factory is divided into six sections: (1) the west section of the refinery, (2) the east section of the refinery, (3) the iron workshop, (4) the power house, (5) the dormitory and (6) the salt field administration. Workers of the last four places are under the direct control of their respective administrative staffs, while workers of the salt refinery are under their own supervisors. At the end of every month, the workers are graded

8: Lin E-5 (1927)1928 AF12 North China AF12

of workers does not require any publicity, as once the news is known to the workers, the latter would introduce their acquaintances and friends who were looking for work. The applicants are given a physical examination and their age must be around twenty. If the above requirements are met and on furnishing a guarantor as well as expressing their willingness to observe the regulations of the factory, the workers are admitted. They are usually discharged on the recommendations of the supervisers in February and July, but more frequently in July. On the average, the number of dismissals is around 20 a year. In recent years, however, it has decreased considerably through better management. From July 1926 to June 1927, only five workers were dismissed in the east section. Those who quit for family reasons or out of their own will are usually about 20 a year. The occupations the workers follow after leaving the factory are said to be as follows: farming 60 per cent, small business 20 per cent, other kinds of work 20 per cent.

The work of the common labourer is subject to frequent changes. Even the skilled labourer is only confined to tending the electric plant or making spare parts for simple machinery. As the work of salt refining is of such a nature that only strength and endurance are required, repetition of the same work does not necessarily give rise to efficiency. Thus, in the factory, change of work is a rule rather than an exception. It is unfortunate that we are unable to analyse the change of jobs among the workers, as the records concerning it are not accessible. What we could secure is limited only to the change of workers. According to a statement made by a chief of the managerial department, the annual rate of replacement is about 8 per cent of the total number of workers in the factory *i. e.* the number of dismissals and admittances is about 40 each a year. But it seems that on account of the irregularity of work in the factory during the last year, the rate of turnover must have been still higher.

Different Kinds of Work.—The work in the Chiu Ta Factory may be divided into the principal and the subsidiary. The principal part of the work is confined to salt refining. The

8: Lin E-5 (1927)1928 AF12 North China AF12

463 subsidiary part of the work that is, any work other than salt
381 refining, is rendered by both skilled and unskilled labourers. The skilled work includes the manufacturing of iron and wooden implements and the operation of the electric plant, while the unskilled work consists in transporting and storing products and other miscellaneous work including service and attendance. A detailed list of the various kinds of work is shown in Table 4.

466 The work, as a whole, is of a safe nature, and does not involve any serious danger to life. The principal work, which consist of dissolving, boiling and baking salt, carrying coal, attending to the furnace and washing salt tanks, requires physical strength. Workers with a weak constitution are liable to fall ill, especially in winter and summer. For instance, the salt boiler is apt to catch cold, after emerging from the heated room, as he has profusely perspired after serious exertions. The work of the firemen, though uncomfortable enough in summer, is rather light as compared with that of other workers. In the work of baking salt, its smell is choking. In summer the hot kang makes the temperature in the room unbearably high. This may be one of the reasons why salt bakers very frequently ask leave of absence in summer. Washing salt tank must be an unpleasant job in winter, as the hands of the worker constantly exposed to the icy cold salt water, are apt to get chilblains. There is, however, one advantage in these kinds of salt refining work, as none require continuous hard work and workers may rest at intervals.

Working Hours.—From 1916 to February of 1927, the common labourer worked 12 hours and the skilled labourer, 10 hours a day. But the eight-hour day has been adopted, since March 1927 in all kinds of work, excepting those to which the system cannot very well apply. In accordance with the nature of the work, labourers have been arranged in shifts. For the salt refining work, for instance, three shifts of men are necessary, but the blacksmiths and apprentices have only one shift, who work from 8 to 12 in the morning and 1:30 to 5:30 in the afternoon. The

8: Lin E-5 (1927)1928 AF12 North China AF12

Table 4. Working Hours of Various Kinds of Work in the Factory

	Kinds of work	Number of shifts	Hours per Shift
Principal work	Salt-boiling	3	8
	Salt-baking	3	8
	Firemen	3	8
	Salt-dissolving	2 or 3	8
	Pulling coal carts	1, 2 or 3	8
	Tank-washing	1	8
Subsidiary work	Firemen (power house and steam Engine)	3	8
	Electric plant	1	8
	Iron workshop	1	8
	Carpentry	1	8
	Store room	1	8
	Recorder	1	8
	Supply department	1	8
	Sundry jobs	1	8
	Bath room	1	10
	Tea kettle keeper	2	12
	Cook	2	12
	Watchman	1, 2 or 3	6, 8 or 12
	Dispatching goods	1	indefinite
	Servant	1	indefinite

three shifts are divided as follows: (1) 6 a.m. to 2 p.m. (2) 2 p.m. to 10 p.m. and (3) 10 p.m. to 6 a.m. A change of shift is effected once every week by switching the first shift to the third and the second to the first; this would allow men in the first shift to rest 32 hours, known as "the big rest" and men in the second and third shifts to rest eight hours. The two shifts are divided between (1) 6 a.m. to 2 p.m. and (2) 2 p.m. to 10 p.m. Exceptions to the eight-hour day are found as follows:

(1) 12-hour day; the change of shift being made twice at 6 a.m. and 6 p.m.

8: Lin E-5 (1927)1928 AF12 North China AF12

is that new workers, most of whom came from Shantung, have been excluded in our sample.

Table 14.—Nativity of the 86 Resident Workers

Province	Number of workers	Per cent
Chihli	46	53
Shantung	31	36
Metropolitan District	7	9
Honan	1	1
Shansi	1	1
Total	86	100

As to the age of these workers, it is shown in Table 15 that 67.5 per cent is between the 19-29 age interval, 25.3 per cent between the 30-39 age interval and 7.2 per cent between the 40-59 age interval. It appears that young men between 19-39 constitute more than 92 per cent of the total. The average age is 28.15. If we take into consideration all resident workers, both new and old, the average age would be still lower, as the newly recruited workers were all around the age of 20.

Table 15.—Age Distribution of the 86 Resident Workers

Age group	Number of workers	Per cent
Under 20	1[1]	1.2
20-29	57	66.3
30-39	22	25.3
40-49	3	3.6
50-59	3	3.6
Total	86	100.0

[1] The age of this worker was 19.

As has been mentioned in a previous chapter, the work in the factory may be divided into (1) the principal work, that is, salt refining work proper and (2) the subsidiary work. Except the skilled workers, such as electricians, carpenters and iron

[A SAMPLE OF WORKERS IN THE CHIU TA SALT REFINERY IN TANGKU — ANALYST]

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463 mongers, whose work is, as a rule, fixed, all the workers are frequently required to change their jobs. The number of labourers engaged in the various kinds of work, as a rule, fluctuates with the amount of the principal work to be done. For instance, when all the six shops of the factory are in operation, more men would be needed to carry on salt refining work and as a consequence, the number of men engaged in the subsidiary work would be reduced. If, on the contrary, there is little principal work, then the superfluous men would go to swell the group of subsidiary workers. It is in this way that the

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Table 16.—Kinds of Work and Working Hours of the 86 Resident Workers

Kinds of work		Working hours	Number of workers
Principal work	Salt boiling	8	12
	Salt baking	8	6
	Salt dissolving	8	5
	Coal carrier	8	2
	Firemen	8	2
	Total		26
Subsidiary work	Iron workshop	8	6
	Carpentry	8	2
	Electric plant	8	2
	Store room	8	1
	Recorder	8	2
	Sundry job worker	8	30
	Watchman at salt field	6	1
	Watchman	12	10
	Cook	12	2
	Tea kettle keeper	12	1
	Dispatcher	indefinite	1
	Dining room attendant	indefinite	3
	Total		60
Grand total			86

8: Lin E-5 (1927)1928 AF12 North China AF12

labourers of the factory are maintained during slack times without causing unemployment among them. The predominance of subsidiary workers, as is shown in Table 16, is because of the fact that, at the time of our investigation, salt production in the factory was very much curtailed on account of the depressed conditions of the trade, and a greater number of labourers engaged in the principal work had to be transferred to do subsidiary work. Among the 86 resident workers, 71 worked eight hours a day. This shows the fact that the eight-hour day is the prevailing system in the factory.

As regards the length of employment of the 86 resident workers it was found that 26 workers have been in the employ from one to three years, 42 workers from four to six years, 17 workers from seven to nine years, and one ten years. This agrees approximately with the result of our investigation concerning the workers of the whole factory.

It may be interesting to find out what had been the occupations of the 86 workers before they came to the factory. They were agricultural workers 51, skilled labourers 9, servants 3, coolies 10, mercantile employees 12, and soldier 1. In the foregoing classification, "agricultural workers" include farmers, tenants and farm hands; "skilled labourers" include the old-type skilled workers, artisans and handicraftsmen; "servants" include office boys. The nature of the other three kinds of occupation is self-explanatory. All these may be consolidated under two classes, viz. (1) Agricultural workers and (2) industrial workers. It is noteworthy that 51 agricultural workers have turned themselves into industrial hands. The reasons for the change of work from the soil to the factory are many, and it seems that natural calamities, like flood and famine, and social disturbances, like banditry and civil war, have contributed to render country sides in various parts of China almost uninhabitable. Large numbers of peasants have, therefore, been compelled to leave their homes and seek a livelihood in towns. Some have migrated to towns with the hope of improving their standard of living, while others have left their homes simply because of unpleasant family relations.

8: Lin E-5 (1927)1928 AF12 North China AF12

because of unpleasant family relations. The occupations of the families of these resident workers[1] may be roughly grouped as farming 60, labouring 21, and commercial 5. It is interesting to note that of the families in the three classes, 81 possessed some sort of farm or house property in the country. Table 17 shows the value of property including the farm and house in the possession of the families of the resident workers. Their valuation was all offered by the workers under investigation. Although they could not be verified from independent sources, yet it may be presumed that they could not be too far from the truth.

Table 17.—Value of Property of the Families of the 86 Resident Workers

Value of property	Number of workers' families
Under $1.000	40
$1.000 and under $2.000	24
$2.000 and under $3.000	8
$3.000 and under $4.000	5
$4.000 and under $5.000	2
$5.000 and above $5.000	2
Families owning properties	81
Families owning no property	5
Total	86

It is to be noted that five families had no property whatsoever. 64 families had property at less than $2,000; 17 families possessed more than $2,000 and only two families had property worth more than $5,000. Under the present disturbed conditions in the country, the value of property has already depreciated a great deal. It should be remembered that the properties of these workmen are without exception inherited from their ancesters and not acquired by themselves. Moreover, the property of each family will have to be divided among brothers, sisters and other immediate relatives. After such

[1] [A couple of the workers in the Canal Tn Salt Refinery in Tangku — Analyst]

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division, how pitiably small each portion will be, it can be imagined.

The size and composition of the so-called "greater family" of the workers at their native places are shown in Table 18.

Table 18.—Size and Member Relationship of 86 Families

Number of persons in family	Number of families	Per cent
1	1	1.2
2	3	3.5
3	9	10.5
4	14	16.3
5	17	19.8
6	12	14.0
7	12	14.0
8	3	3.5
9	6	7.0
10	4	4.7
12	2	2.3
14	2	2.3
Total	86	100.0
Average number of persons per family		5.96

Member relationship	Number of persons	Per cent
Heads of family (i. e. workers)	86	22.6
Wives	41	8.0
Sons	21	4.1
Daughters	8	1.6
Fathers	48	9.3
Mothers	64	12.5
Brothers	116	22.6
Sisters	24	4.7
Sisters-in-law	38	7.4
Nephews	28	5.4
Nieces	18	3.5
Uncles	7	1.4
Aunts	7	1.4
Grand fathers	3	.6
Grand mothers	3	.6
Stepmother	1	.2
Grand son	1	.2
Total	514	100.0

The family of from four to seven members seems to be the predominating type. The miximum size of the worker's family had 14 members, while the average size of each family is about six.

From the composition of these families in Table 18, it will also be noted that from the grandfather, the grandmother and the uncle down to the grandson, all immediate relatives usually live in one household. It has been the custom in China for sons to live with their parents after marriage, and the size of a family

8: Lin E-5 (1927)1928 AF12 North China AF12

162 28 per cent is over 39. The average age is 34. 37. Compared with resident workers, whom we have already described in the preceding chapter, those having families seemed to be older, as more persons concentrated in the 30-39 age interval rather than in the 20-29 age interval.

The work of the 61 operatives at the factory at the time of the investigation may be tabulated as follows:

463 466 **Table 27.—Kinds of Work and Working Hours of 61 Chiu Ta Workers Having Families**

Kinds of work		Working hours	Number of workers
Principal work	Salt boiling	8	2
	Salt baking	8	1
	Salt dissolving	8	2
	Firemen	8	2
	Total		7
Subsidiary work	Iron workshop	8	8
	Carpentry	8	2
	Electric plant	8	5
	Store room	8	3
	Recorder	8	2
	Sundry job worker	8	24
	Watchman	12	2
	Cook	12	2
	Ten kettle keeper	12	2
	Dispatcher	indefinite	1
	Servant	indefinite	2
	Total		39
Grand total			61

463 The previous occupations pursued by these 61 workers were found to be: agricultural work 22, skilled work 8, unskilled work 22, mercantile 9, and soldier and police 3.

162 The families of these 61 workers were small in size, the average size being 3.72 persons. More than two-thirds of the

8: Lin E-5 (1927)1928 AF12 North China AF12

The Pacific Alkali Works may be said to be very favourably situated for the manufacture of soda. Salt, coal and limestone may be supplied in abundance from the environing districts. Ammonia sulphate is the only material that should be imported from England or the United States.

The Pacific workers fall into nine groups according to the factory regulations: (1) mechanics (2) electricians (3) blacksmiths (4) firemen (5) carpenters (6) masons (7) common workers (8) apprentices and (9) servants. However, they may be classified according to the nature of work into the following:— (1) mechanics (2) firemen (3) common workers and (4) apprentices. To these may be added also foremen and assistants.

The duty of the foreman is to direct workers. The assistant being in charge of chemical analysis, he should, therefore, possess some knowledge of elementary English, mathematics and chemistry. Formerly the assistants were usually graduates of primary or even middle schools, but recently the factory has begun to train its own assistants and any person having some knowledge of English and arithmetic is admitted. He who has had sufficient training and practice will be promoted to the class of assistants. The skilled workers include mechanics, blacksmiths, electricians, carpenters, and masons. Firemen form a special class of their own. Apprentices are trained in all kinds of skilled work. The term of apprenticeship is three years, after which every apprentice is required to work in the factory for three years, and a certificate is issued to each. Any one who leaves before that period must pay expenses hitherto incurred for him by the factory. The common workers include store-room keepers, watchmen, servants, porters and coolies. Their work is subject to change. Besides the workers mentioned, four kinds of work in the factory are generally consigned to contractors; they are the lime kiln, stone breaking, loading and unloading of raw materials and temporary or emergent work. The former three are executed under a long term contract and not considered as the work of the factory proper, while the latter is frequently undertaken by the workers in the factory in their leisure hours with a view to getting some extra pay.

8: Lin E-5 (1927)1928 AF12 North China AF12

represent 26.6 per cent of the total of that class, mechanics 11.3 per cent, and common workers 8.3 per cent.

Regarding the nativity of the 50 workers under investigation, most of the mechanics and assistants were from Chihli and most of the firemen and common labourers from Shantung. This reflects in general the nativity distribution of the total number of workers.

The age of the 50 workers was comparatively young, for 23 of them were below the age of 25, 18 between the ages of 26 and 35, and 9 between the ages of 36 and 40. No worker was older than 40.

Table 47 shows the kinds of work and working hours of the 50 workers. Mechanics, firemen and assistants generally have fixed work, while common labourers often change their jobs in the factory.

Table 47.—Kinds of Work and Working Hours of 50 Resident Workers

Class of workers		Working hours	Number of workers
	Mechanics	8	10
	Firemen	8	4
	Assistants	8	7
Common workers	Soda worker	8	13
	Cleaner	8	5
	Repairing	8	2
	Store keeper	8	2
	Sundry job worker	8	1
	Coal-carrier	8	1
	Tea-room attendant	12	1
	Watchman	12	3
	Dustman	indefinite	1
	Total	.....	50

The various kinds of occupation which these workers had pursued before they joined the factory were as follows: farmers 22, artisans and workers 12, coolies 5, merchants 7 and students 4. Mechanics, being skilled workers, are recruited largely from

8: Lin E-5 (1927)1928 AF12 North China AF12

those who had experience in other places. As the assistants are required to know some elementary English and arithmetic, most of them were students of primary schools. The majority of the common workers, however, come from the farmer class.

As shown in Table 48, the size of the family of these 50 workers varied from 2 to 16 members, with an average of 6.4 persons to a family. About 56 per cent of the families had from 3 to 6 members to a family. It appears that the constitution of these families is by no means homogeneous. Such members of the family as parents, brothers, sisters, sister-in-law, nephews, nieces etc. constituted as much as 68 per cent of the total.

Table 48.—Size and Member Relationship of 50 Families

Number of Persons in Family	Number of Families	Per cent
2	3	6
3	5	10
4	6	12
5	8	16
6	9	18
7	4	8
8	3	6
9	3	6
10	4	3
11	2	4
12	2	4
16	1	2
Total	50	100
Average number of persons per family	6.4	

Number Relationship	Number	Per cent
Head of families (i. e. workers)	50	15.6
Wives	20	6.3
Sons	17	5.3
Daughters	15	4.7
Fathers	29	9.1
Mothers	40	12.5
Brothers	67	20.9
Sisters	13	4.1
Sisters-in-law	23	7.2
Nephews	22	6.9
Nieces	12	3.8
Uncles	5	1.5
Aunts	4	1.2
Grandfathers	1	0.3
Grandmothers	2	0.6
Total	320	100.0

The economic condition of the 50 families varies. Generally speaking, firemen and common workers came from country districts of Chihli and Shantung and they had small lots of land to maintain the livelihood of their families. The families of mechanics lived mostly near Tientsin and they depended primari-

8: Lin E-5 (1927)1928 AF12 North China AF12

CHAPTER VII

CONCLUSION.

124 The present inquiry covers a period of three months, from May to July, 1927. Facts regarding the general features and welfare work of the factories under investigation were chiefly derived from factory records and personal interviews, while the study of cost of living was entirely based upon the schedules of 197 workers, of which 86 were Chiu Ta resident workers, 61, Chiu Ta non-resident workers, and 50, Pacific resident workers. The workers were selected at random; the proportions between the total number of workers and number of workers investigated were 4:1 for Chiu Ta resident workers, 2:1 for families of Chiu Ta workers, and 10:1 for Pacific workers.

463 At the very beginning of the investigation, there were 556 workers in the Chiu Ta Factory, of whom 75 were skilled. The unskilled labourers were mostly employed in the work of salt refining which requires neither knowledge nor experience of a technical nature; the skilled labourers were engaged in subsidiary work, such as tending the electric plant, manufacturing iron and wooden implements, etc. The Chiu Ta Salt Refinery required only workers of good health and physical strength, while the Pacific Alkali works needed skilled ones. Manufacturing soda by the Solvay process is entirely done by modern machinery and the workers have been graded into classes. Besides the 6 foremen in different fields of skilled work, the Works employed in May 1927, 87 mechanics, 15 firemen, 22 assistants, 32 apprentices and 349 common labourers. In spite of the large majority of common labourers, it was the mechanics, firemen and assistants who formed the backbone of the factory. This is the main difference in the aspect of labour employment between the two factories which are situated together and related in administrative policies.

000 The workers of these two factories, as shown by their nativity